

REMARKS

Claims 1, 2 and 4-10 are pending in the present application, and are rejected. New claim 11 has been added. No claims are herein amended. No new matter has been presented.

New claim 11 limits the scope of claim 1 in the sense that the lower layer of the lower-electrode conductive film is formed by DC sputtering. See page 8, lines 17-19 of the applicant's original specification for this feature.

Claim Rejections - 35 U.S.C. §103

Claims 1-3 and 5-8 are rejected under 35 U.S.C. §103(a) as being unpatentable over Corvasce et al. US 6,300,654 in combination with Sasaki et al. US 6,444,099 and Matsuura et al. US 6,964,873.

With respect to the claimed substrate temperature, the Examiner now asserts that Matsuura et al. discloses "the Ti adhesion layer 33A is formed "at a room temperature" while Sasaki et al. discloses "producing a titanium thin film for use as a barrier film at temperature of substrate holder 5 during film deposition of 300 °C.

The Examiner asserts that one would recognize that both references teach titanium layer deposition, with some parameters being the same and some being different. The Examiner concludes therefore that one would have been led to any temperature between the room temperature of Matsuura et al. and the 300 °C of Sasaki et al. (of Example 1: Ti deposition in argon) through routine experimentation to achieve desired deposition and reaction rates.

Applicants emphasize the criticality of the claimed temperature range based on the Declaration.

Applicants submit that the present invention's parameters result in unexpectedly superior results associated with the claimed substrate temperature of above room temperature and lower than 200 °C. Applicants have previously submitted additional evidence of unexpected results in the Response dated February 21, 2007. The Examiner apparently did not give weight to the experimental results.

Therefore, Applicants submit herewith a Declaration under 37 C.F.R. §1.132 that presents and discusses the previously submitted unexpectedly superior result of the present invention over what might have been expected based on the cited references and the state of art at the time of the invention.

Applicants submit that the results discussed in the presently submitted Declaration are the experimental results presented in the Response dated February 21, 2007. Applicants herein incorporate the appropriate portions of the Response.

In view of the aforementioned remarks, Applicants submit that that the claims, as herein presented, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

Application No. 10/772,253
Attorney Docket No. 042068

Amendment under 37 C.F.R. §1.111
Amendment filed December 28, 2007

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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Enclosure: Inventor's Declaration under 37 C.F.R. §1.132